

## AMENDMENTS TO THE CLAIMS

Please amend the claims as shown:

1 – 6 (canceled)

7. (currently amended) A computer-based method for monitoring and carrying out a diagnosis of a technical installation comprising a plant for generating electrical power, the method comprising:

deriving a temperature pattern from a number of temperature values and temperature information related to the technical installation and related to a present ~~current~~ operating situation of the technical installation;

comparing the derived temperature pattern to a known failure temperature pattern and a stored failure temperature pattern and a process a disturbance temperature pattern related to a specific operating situation of the technical installation; and

based on results from the comparing, determining whether classifying the present ~~current~~ operating situation of the plant for generating electrical power comprises one of the following operating situations: as a normal and operating situation, a stationary and operating situation, a transient and operating situation, a tolerable and operating situation, an abnormal operating situation, and a dangerous operating situation of the technical installation based on the ~~comparison.~~

8. (currently amended) The method according to claim 7, further comprising storing the determined present ~~classification of the current~~ operating situation and its related temperature pattern ~~in a memory, preferably a database,~~ for a future comparison with a future temperature pattern occurring during a future operation of the technical installation.

9. (previously presented) The method according to claim 8, further comprising acquiring the temperature values and temperature information by means of an infrared camera.

10. (currently amended) An apparatus for carrying out diagnosis of a technical installation comprising a plant for generating electrical power, the apparatus comprising:

a data acquisition module adapted to acquire a number of temperature values and temperature information related to the technical installation; and

an analysis module adapted to derive a temperature pattern related to a present ~~current~~ operating situation of the technical installation from the temperature values and temperature information,

wherein the analysis module comprises computer-readable code adapted to compare ~~comparing~~ the temperature pattern to a known failure temperature pattern and a stored failure temperature pattern and process a disturbance temperature pattern related to a specific operating situation of the technical installation,

and to ~~classify~~ wherein the analysis module further comprises computer-readable code adapted to determine whether the present ~~current~~ operating situation of the plant for generating electrical power comprises one of the following operating situations: as a normal ~~and~~ operating situation, a stationary ~~and~~ operating situation, a transient ~~and~~ operating situation, a tolerable ~~and~~ operating situation, an abnormal operating situation, and a dangerous operating situation of the technical installation.

11. (currently amended) The apparatus according to claim 10, further comprising a memory adapted to store the determined present ~~classification of the current~~ operating situation and its related temperature pattern for a future comparison with a future temperature pattern occurring during a future operation of the technical installation.

12. (previously presented) The apparatus according to claim 10, further comprising an infrared camera included by the data acquisition module.

13. (previously presented) The apparatus according to claim 11, wherein the memory is a database.